

FEDERAL

Promulgation Of A  
Workplace IAQ Standard  
As An Adjunct To OSHA  
Reform

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[Short Version]

[Promulgation of a Workplace IAQ Standard  
Amendment to OSHA Reform Legislation]

SECTION 1. FINDINGS.

The Congress finds that--

(1) workers spend up to 90 percent of a day indoors and, as a result, have a significant potential for exposure to poor indoor air quality;

(2) scientific data and building investigations suggest that poor indoor air quality is responsible for occupant health and comfort complaints and that, of these complaints, the majority are associated with inadequate ventilation;

(3) energy saving features and aging, poorly maintained heating, ventilation and air conditioning systems in many workplaces have substantially reduced the outdoor air exchange and indoor air distribution or otherwise contributed to an increased potential for elevated concentrations of indoor air constituents in those structures;

(4) it is in the public interest to reduce exposure to poor indoor air quality by developing a comprehensive program to address the requirements for indoor air quality in workplaces. In so doing, it is in the public interest to pursue an overall, building systems approach to indoor air quality.

## SECTION 2. PURPOSE.

The purpose of this Act is to direct the Secretary of Labor to issue a final indoor air quality standard which will contain performance-based requirements, with an emphasis on improved ventilation systems, maintenance and related work practices.

## SECTION 3. DEFINITIONS.

For the purposes of this Act, the term--

(1) "Agency" means the Occupational Safety and Health Administration (OSHA);

(2) "ASHRAE" means the American Society of Heating Refrigeration and Air-conditioning Engineers, Incorporated;

(3) "HVAC system" means the collective components of the heating, ventilation and air conditioning system for any indoor space;

(4) "indoor air constituent" means any chemical substance or biological organism, including combinations or mixtures of substances or organisms, known to occur in the indoor air environment;

(5) "non-industrial work environment" means an indoor occupied space such as, but not limited to, offices, educational facilities, commercial establishments, and health care facilities. It does not include areas such as manufacturing and production facilities, laboratories, residences, vehicles, building construction worksites (where the building is not occupied by employees covered under this Act), agricultural operations, and

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offices where employees are directly involved in production or manufacturing processes (e.g., small quality control offices where employees move frequently in and out to production areas). Office areas located at a manufacturing or production facility where employees are not directly involved in production or manufacturing processes are included in the scope of this standard;

(6) "Secretary" refers to the Secretary of the Department of Labor; and

(7) "workplace" means that portion of any enclosed, indoor area in which members of the general public are not permitted.

#### SECTION 4. A STANDARD TO ADDRESS INDOOR AIR QUALITY.

(a) Authority.--The Secretary, through the Agency, shall issue a standard in order to protect workers in non-industrial work environments from the IAQ effects of poor indoor air quality by requiring the proper design, operation and maintenance of heating, ventilation and air conditioning systems.

(b) Proposed Standard.--Within 18 months after the date of enactment of this Act, the Agency shall, pursuant to subsection (a) and the provisions of the Occupational Safety and Health Act of 1970 (29 U.S.C. 651-679), publish in the Federal Register a proposed standard, which shall include at least the worker protection provisions of Section 5.

#### SECTION 5. MANDATORY COMPONENTS OF A WORKPLACE STANDARD.

The standard promulgated by the Agency for non-industrial workplaces shall include:

(1) Minimum Requirement. The standard shall establish a threshold level for carbon dioxide and certain minimum requirements for HVAC operations and maintenance. The standard shall provide that employers who exceed the threshold carbon dioxide level or do not meet the minimum requirements for HVAC operation and maintenance shall be required to take reasonable, feasible steps to reduce carbon dioxide concentrations to the acceptable level, and meet minimum requirements for HVAC operation and maintenance;

(2) Performance Criteria.--The standard shall provide the employer with the flexibility to determine what actions are necessary to reduce indoor air levels of carbon dioxide to an acceptable level. These actions include, but are not limited to, increases in the ventilation rates;

(3) HVAC Operation and Maintenance.--Requirements for the operation and maintenance of HVAC systems that shall include (i) a requirement that HVAC systems shall be operated continuously during working hours except during emergencies, repairs or in such other circumstances; (ii) a requirement for periodic inspection, maintenance and monitoring of HVAC systems to assure proper operation, efficiency, general hygiene, and bioaerosol control; (iii) requirements concerning the proper air filtration techniques; (iv) requirements concerning acceptable temperature and humidity ranges necessary in developing a sound approach to indoor air quality.

(4) Design, Construction, Renovation of Buildings or HVAC Systems.--Requirements that employers maintain acceptable indoor air quality during periods while work is being performed on the workplace facility (e.g., remodeling, reroofing, painting and similar activities) shall be included in the standard. When replacement or substantial renovation or alteration of the HVAC system is undertaken, requirements should mandate that the HVAC system be updated so as to provide at least the minimum ventilation rates currently specified in ASHRAE 62-1989. Requirements should also address the indoor air quality problems which can be associated with new buildings being "commissioned" or occupied for the first time;

(5) Renovation, New Construction, Cleaning.--Renovation work, new construction, cleaning operations and pesticide applications that result in the diffusion of dust, stone and other small particles, toxic gases or other harmful substances in quantities sufficient to produce IAQ effects shall be safeguarded by means of requirements for local ventilation or other protective devices to insure the safety of employees;

(6) Building Operation.--The employer shall ensure that the operation and maintenance of building equipment and processes that have the potential to produce potentially hazardous indoor air constituents are being operated and maintained properly; and

(7) Biologicals.--The employer shall control biological contamination by promptly replacing or properly cleaning porous

materials that have been moisture damaged. In addition, visible mold or algae shall not be growing in duct work, humidifiers or other HVAC system components.

#### SECTION 6. FINAL STANDARD AND STATE PLANS.

(a) Final Standard.--Within 24 months following the issuance of the proposed standard, the Secretary shall promulgate a final standard containing requirements based upon the worker protection provisions listed above. Any additional provision of the final standard that is directed at further reducing the risk of exposure from a specific indoor air constituent must be based on a determination that the other requirements of the standard do not substantially reduce a significant risk of harm under sections 3(8) and 6(b)(5) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 652(8), 655(b)(5)). If the final standard is not promulgated within 42 months of the enactment of this Act, the proposed rule shall become on that date an interim final standard which shall be in effect until the Secretary promulgates the permanent final standard required hereunder.

(b) State Plans.--Any law, ordinance, rule or administrative regulation enacted or issued by any state (or local jurisdiction thereof) not covered by a State Plan under section 18(c) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 667(c)), the substantial effect of which is to protect workers from indoor air constituents with IAQ effects, shall be subject in its entirety to

section 18(a) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 667(a)).

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